

TABLE 3.—Comparison between the constant factor and the variable factors of the Eppley pyrheliometer

(1) Scale ¹	(2) Factor	(3)	(4)	(5) Percent departure (4) from (3)	(6) Corre- sponding millivolts		
		Gram-calories					
		(1)+(2)	0.0249 ×(1)				
21.0	0.0234	0.491	0.523	+6.5	0.61		
23.1	235	.545	.575	+5.9	.67		
25.3	236	.597	.630	+5.5	.74		
27.5	237	.652	.685	+5.1	.81		
29.6	238	.704	.737	+4.7	.88		
31.7	239	.758	.789	+4.1	.95		
33.7	240	.809	.839	+3.7	1.02		
35.8	241	.863	.891	+3.2	1.08		
37.8	242	.915	.941	+2.8	1.14		
39.8	243	.967	.991	+2.5	1.19		
41.4	244	1.010	1.031	+2.1	1.25		
43.1	245	1.056	1.073	+1.6	1.31		
44.9	246	1.105	1.118	+1.2	1.36		
46.9	247	1.158	1.168	+0.9	1.41		
48.6	248	1.205	1.210	+0.4	1.45		
50.1	249	1.247	1.247	0	1.49		
51.4	250	1.285	1.280	-0.4	1.53		
52.5	251	1.318	1.307	-0.7	1.57		
53.5	252	1.348	1.332	-1.2	1.61		
54.4	253	1.376	1.355	-1.5	1.64		
55.4	254	1.407	1.379	-2.0	1.67		
56.2	255	1.433	1.399	-2.3	1.70		
56.9	256	1.457	1.417	-2.7	1.72		
57.6	257	1.480	1.434	-3.2	1.74		
58.2	258	1.502	1.449	-3.5	1.76		
59.0	259	1.528	1.469	-3.8	1.78		
59.7	260	1.552	1.487	-4.2	1.80		

¹ The recording micromax potentiometer used for this test has a full-scale deflection of 3 millivolts; it therefore is necessary to shift to its alternate 15-millivolt circuit when the needle reaches 100 on the scale.

The probable errors of the values in column 3 do not exceed ± 0.3 percent.

Factors to reduce scale readings on potentiometer recording e. m. f. generated by Clark thermoelectric pyrheliometer

Potentiometer	Factors	Gram-calories	Potentiometer	Factors	Gram-calories
Scale readings:					
40.5	0.0126	0.510	81.8	132	1.080
46.9	127	.506	88.7	133	1.180
54.7	128	.700	98.5	134	1.320
62.0	129	.800	105.2	135	1.419
70.0	130	.910	109.0	136	1.482
76.3	131	1.000	114.0	137	1.562

¹ With potentiometer having full scale deflection of 3 millivolts it is necessary to shift to the 15-millivolt scale when the needle approaches the top of the scale.

Our conclusions are:

(1) Provided factors are determined according to methods here described, thermoelectric pyrheliometers are excellent for laboratory use in making routine measurements with a precision as good as that obtained with a Marvin pyrheliometer, and only slightly under the precision attained with the Smithsonian silver-disk pyrheliometer.

(2) The advantages of the use of this type of instrument are manifold; first, a saving of at least 75 percent in the observer's time; second, the readings are continuous; and third, the simplicity of the whole apparatus eliminates much of the trouble experienced with the accessories necessary for the Marvin pyrheliometer.

(3) The vacuum type is ideal for field use when used with a portable potentiometer, especially when weight is an important factor, as for example, when measurements are desired on high, poorly accessible mountain tops, because the whole pyrheliometer weighs less than 1 pound.

(4) The vacuum pyrheliometer assumes equilibrium within six seconds after opening the shutter; the copper-constantan type requires about 20 seconds to reach equilibrium.

(5) The probable errors are slightly less with the non-vacuum type.

(6) A portable precision eye-read potentiometer is recommended for field use rather than a microammeter, as the former eliminates practically all errors arising from changes in resistance of various units in the electrical circuit.

Additional comparisons made in subzero weather early in 1941 between the Smithsonian silver disk, the Clark vacuum type and the new Eppley pyrheliometers show (1) much less variation in the factors for the new Eppley pyrheliometers with widely-spaced elements, and (2) a slight free-air temperature effect; that is, all the thermoelectric pyrheliometers tested show greater efficiency with very low free-air temperatures.

ADJUSTMENT OF AIRPORT STATION-PRESSURE RECORDS TO FORMER CITY STATION ELEVATION

By W. W. REED

[Weather Bureau, Washington, D. C., January 1941]

In the installation of mercurial barometers at the airports, the tables for reduction of station pressure to sea level were based in most cases on a station elevation corresponding exactly, or very nearly, to the elevation of the ivory point of the barometer, or to the level 8 feet above the landing field. In only a relatively few cases was the adopted station elevation made to coincide with the station elevation at the city office.

At city offices established prior to 1900, the practice has been followed since the beginning of that year of maintaining a single "station elevation" by applying a "removal correction" whenever the barometer was moved to a different elevation from that existing on January 1, 1900, so that the "station pressures" pertained to the actual elevation as of that date. Thus the adopted "station elevation" corresponded to the actual elevation of the ivory point of the barometer at the beginning of the current century. At city offices established subsequent to January 1, 1900, the adopted "station elevation" was almost invariably the actual elevation of the barometer

when the station was first established. Under this system, records of "station pressure" at city offices have been directly comparable since the dates in question by virtue of the fact the data were pertinent to a single "station elevation."

However, where city offices were closed or consolidated with the airport stations, the changes in elevation were so considerable in many cases that it was inadvisable to attempt the employment of a "removal correction" and the airport "station elevations" were maintained.

Beginning with July 1939, and prior thereto at several stations, the records of pressure at most of the airports were made official for synoptic purposes and published in the MONTHLY WEATHER REVIEW. This procedure introduced into the homogeneity of pressure records breaks that range in value from a few thousandths of an inch, insignificant for practical purposes, to more than 0.50 inch locally in winter. In view of the need for homogeneity in respect to elevation in the study of pressure trends, action has been taken to prepare adjustments for

the airport station pressures to reduce them to the former city office station elevation. However, separate records of "station pressure" pertinent to the originally adopted airport "station elevation" are still maintained.

The following table gives airport pressure readings corrected so as to represent mean monthly station pressures for the old City Office station elevation in order to extend the former homogeneous series over the interruption to September 1940, when the REVIEW began to carry data that meet the requirement noted above. In printing the data the first figure of the whole number of inches has been omitted and only the last figures and the decimal are shown. The first figure of the whole number is 3 for zero in the tens place and 2 in all other cases. Even with these adjustments applied, future data will not be strictly comparable with the 1900-1939-40 series, but the divergences will, in general, be small.

Station pressures at Airport adjusted to the old City Office elevation

Stations	January	February	March	April	May	June	July	August	September	October	November	December
Abilene, Tex. (1,750-1,738 ft.):												
1939												
1940	8.35	8.16	8.10	8.09	8.12	8.12	8.15	8.15	8.18	8.22	8.40	8.23
Albany, N. Y. (292-97 ft.):						9.86	9.84	9.85	9.90	9.99	0.02	9.95
1938						9.83	9.85	9.84	9.86	9.91	0.06	9.74
1940	9.90	9.86	9.83	9.83	9.81	9.77	9.90	0.00				
Albuquerque, N. Mex. (5,314-4,072 ft.):								5.10	5.12	5.11	5.20	5.12
1939								5.12	5.12			
1940	5.07	5.02	4.98	4.98	5.04	5.04	5.12	5.12				
amarillo, Tex. (3,604-3,676 ft.):							6.30	6.30	6.32	6.30	6.45	6.28
1939							6.31	6.31				
1940	6.32	6.20	6.16	6.18	6.24	6.25	6.31	6.31				
Atlanta, Ga. (976-1,173 ft.):												
1934												8.90
1935	8.90	8.86	8.86	8.70	8.79	8.78	8.80	8.78	8.80	8.94	8.86	8.87
1936	8.79	8.83	8.69	8.83	8.83	8.72	8.77	8.83	8.83	8.85	8.91	8.93
1937	8.92	8.81	8.78	8.74	8.78	8.76	8.81	8.84	8.82	8.81	8.87	8.92
1938	8.83	8.96	8.82	8.84	8.76	8.82	8.80	8.85	8.81	8.87	8.91	8.87
1939	8.85	8.86	8.78	8.79	8.81	8.79	8.77	8.83	8.86	8.97	8.78	
1940	8.86	8.75	8.74	8.75	8.72	8.80	8.87	8.78				
Augusta, Ga. (426-182 ft.):								9.70	9.79	9.84	9.88	9.84
1939								9.88	9.79			
1940	9.03	9.81	9.70	9.79	9.74	9.81	9.70	9.79			0.02	9.84
Austin, Tex. (621-605 ft.):												
1939												
1940	9.57	9.37	9.32	9.28	9.30	9.28	9.32	9.31	9.34	9.41	9.59	9.43
Baker, Oreg. (3,373-3,471 ft.):												
1939												
1940	6.50	6.38	6.42	6.44	6.45	6.46	6.46	6.46	6.47	6.53	6.62	6.51
Baltimore, Md. (16-123 ft.):												
1939												
1940	9.95	9.83	9.84	9.84	9.78	9.81	9.92	9.96				
Birmingham, Ala. (630-700 ft.):												
1939												
1940	9.43	9.28	9.26	9.25	9.23	9.28	9.34	9.26				
Bismarck, N. Dak. (1,660-1,677 ft.):												
1939												
1940	8.39	8.26	8.24	8.23	8.21	8.15	8.15	8.16	8.17	8.17	8.36	8.18
Boise, Idaho (2,705-2,739 ft.):												
1939												
(2,858-2,739 ft.):												
1940	7.26	7.14	7.15	7.14	7.13	7.11	7.10	7.12				
Boston, Mass. (29-124 ft.):												
1938	9.77	9.90	9.78	9.85	9.85	9.77	9.73	9.87	9.96	9.93	9.86	0.06
1937	0.11	9.79	9.70	9.87	9.80	9.77	9.82	9.92	9.90	9.88	9.85	9.93
1938	9.90	0.01	9.83	9.88	9.78	9.84	9.83	9.82	9.87	9.94	9.98	9.90
1939	9.83	9.93	9.90	9.78	9.82	9.84	9.82	9.85	9.89	9.86	9.97	9.65
1940	9.80	9.75	9.74	9.79	9.81	9.75	9.88	9.99				
Brownsville, Tex. (20-57 ft.):												
1939												
1940	0.11	9.93	9.87	9.82	9.86	9.82	9.91	9.84				
Buffalo, N. Y. (706-768 ft.):												
1939												
1940	0.16	9.16	9.11	9.14	9.09	9.08	9.24	9.27				
Charlotte, N. C. (769-779 ft.):												
1939												
1940	9.25	9.14	9.15	9.15	9.10	9.17	9.26	9.20				

*Station pressures at Airport adjusted to the old City Office elevation—
Continued*

Station pressures at Airport adjusted to the old City Office elevation—
Continued

Stations	January	February	March	April	May	June	July	August	September	October	November	December
Helena, Mont. (3,898-4,124 ft.): 1940				5.82	5.81	5.83	5.85					
Houston, Tex. (62- 135 ft.): 1939	0.06	9.86	9.83	9.79	9.81	9.78	9.83	9.81	9.83	9.81	0.07	9.83
Huron, S. Dak. (1,289-1,301 ft.): 1939						8.54	8.56	8.57	8.57	8.57	8.80	8.60
1940	8.80	8.67	8.62	8.58	8.58	8.51	8.58	8.62				
Indianapolis, Ind. (808-823 ft.): 1939						9.10	9.10	9.14	9.16	9.16	9.37	9.08
1940	9.22	9.12	9.09	9.08	9.02	9.07	9.20	9.14				
Jacksonville, Fla. (31-43 ft.): 1940						0.04	9.93					
Kansas City, Mo. (750-963 ft.): 1934	9.08	9.16	9.08	8.95	8.96	8.85	8.90	8.94	8.95	9.02	8.97	9.08
1935	9.11	9.11	8.90	8.90	8.93	8.88	8.96	8.94	8.99	9.06	9.07	9.10
1936	9.02	9.03	8.84	8.99	8.95	8.89	8.91	8.91	8.94	9.02	9.14	9.07
1937	9.07	9.00	9.05	8.84	8.92	8.91	8.93	8.96	9.01	9.00	9.09	9.10
1938	9.01	9.10	8.83	8.93	8.85	8.96	8.93	8.95	8.99	9.03	8.90	9.07
1939	8.93	8.99	9.00	8.93	8.89	8.87	8.91	8.92	8.96	8.96	9.23	8.97
1940	9.18	8.98	8.92	8.90	8.91	8.90	8.99	8.97				
Key West, Fla. (11-21 ft.): 1939						0.00	9.96	9.95	9.93	0.03	0.04	
1940	0.07	0.02	0.97	0.99	0.95	0.98	0.02	0.96				
Knoxville, Tenn. (980-995 ft.): 1939						8.96	8.95	9.01	9.04	9.18	8.97	
1940	9.07	8.94	8.93	8.92	8.89	8.97	9.05	8.97				
La Crosse, Wis. (672-714 ft.): 1939						9.20	9.19	9.22	9.18	9.46	9.17	
1940	9.35	9.29	9.24	9.22	9.13	9.11	9.26	9.25				
Little Rock, Ark. (265-357 ft.): 1939						9.59	9.57	9.61	9.69	9.89	9.67	
1940	9.85	9.64	9.60	9.56	9.58	9.58	9.66	9.60				
Los Angeles, Calif. (512-338 ft.): 1940						9.66	9.63	9.58	9.60	9.57		
Louisville, Ky. (545- 525 ft.): 1939						9.42	9.42	9.46	9.50	9.70	9.44	
1940	9.59	9.45	9.43	9.39	9.36	9.40	9.52	9.45				
Macon, Ga. (464- 370 ft.): 1939						9.60	9.58	9.63	9.68	9.81	9.64	
1940	9.74	9.62	9.59	9.60	9.54	9.62	9.68	9.58				
Madison, Wis. (866- 971 ft.): 1939						9.55	9.52	9.58	9.65	9.83	9.61	
1940	9.01	8.98	8.95	8.95	8.85	8.86	0.03	9.00				
Memphis, Tenn. (284-399 ft.): 1939						9.61	9.56	9.62	9.69	9.83	9.66	
1940	9.78	9.58	9.55	9.51	9.53	9.55	9.62	9.56				
Meridian, Miss. (310-375 ft.): 1939						9.25	9.24	0.28	9.24	9.50	9.17	
1940	9.80	9.62	9.60	9.58	9.57	9.60	9.66	9.58				
Miami, Fla. (12-25 ft.): 1940						0.04	9.96					
Miles City, Mont. (2,634-2,371 ft.): 1939						7.45	7.48	7.49	7.49	7.64	7.50	
1940	7.67	7.48	7.47	7.51	7.50	7.44	7.47	7.49				
Milwaukee, Wis. (698-681 ft.): 1939						9.25	9.24	0.28	9.24	9.50	9.17	
1940	9.32	9.30	9.26	9.26	9.15	9.16	0.34	9.30				
Minneapolis, Minn. (838-919 ft.): 1938						8.94	8.88	8.97	8.94	8.96	9.03	8.97
1939	8.93	8.99	9.04	8.94	8.90	8.88	8.96	8.96	8.98	8.94	9.21	8.94
1940	9.13	9.07	9.03	9.00	8.93	8.89	0.03	9.03				
Missoula, Mont. (3,189-3,263 ft.): 1939						6.65	6.66	6.66	6.69	6.82	6.69	
1940	6.75	6.55	6.59	6.62	6.65	6.64	6.63	6.66				
Mobile, Ala. (29-57 ft.): 1939						8.90	8.90	8.90	8.92	8.91	0.15	0.01
1940	0.13	9.98	0.95	0.94	0.91	0.94	0.99	0.91				
Montgomery, Ala. (237-218 ft.): 1939						9.77	9.73	9.79	9.85	9.99	0.82	
1940	9.94	9.80	9.77	9.76	0.73	9.78	0.83	0.74				
Moorhead, Minn. (899-940 ft.): 1939						9.40	0.39	0.44	0.50	0.67	0.44	
1940	9.16	9.07	9.04	9.00	8.78	8.67	8.98	9.01				
Nashville, Tenn. (605-546 ft.): 1939						0.40	0.39	0.44	0.50	0.67	0.44	
1940	9.59	9.42	9.40	9.37	0.36	0.40	0.49	0.42				

Station pressures at Airport adjusted to the old City Office elevation—
Continued

Stations	January	February	March	April	May	June	July	August	September	October	November	December
New Haven, Conn. (13-107 ft.): 1939	0.88	9.76	9.82	9.84	9.82	9.80	9.86	9.87	9.94	9.91	0.04	9.73
1940												
New Orleans, La. (30-83 ft.): 1939	.14	9.97	9.94	9.93	9.92	9.92	9.98	9.90	9.94	0.00	0.14	0.02
1940												
Norfolk, Va. (30-91 ft.): 1940							9.98	9.97				
North Platte, Nebr. (2,787-2,821 ft.): 1939	7.18	7.03	6.99	7.00	7.05	7.01	7.04	7.06	7.08	7.05	7.26	7.08
1940												
Oklahoma City, Okl. (1,304-1,214 ft.): 1939	8.92	8.70	8.64	8.62	8.66	8.66	8.72	8.69				
1940												
Omaha, Nebr. (982- 1,105 ft.): 1935	8.88	8.90	8.68	8.85	8.81	8.72	8.79	8.78	8.82	8.92	8.91	8.93
1936												
1937	8.91	8.83	8.91	8.68	8.76	8.76	8.78	8.86	8.85	8.91	8.93	8.93
1938	8.86	8.96	8.68	8.78	8.71	8.72	8.70	8.76	8.79	8.84	8.85	8.86
1939	8.76	8.85	8.88	8.78	8.72	8.70	8.76	8.79	8.81	8.79	0.07	8.83
1940	9.03	8.86	8.80	8.78	8.78	8.74	8.82	8.83				
Peoria, Ill. (662-609 ft.): 1939												
1940	9.48	9.38	9.34	9.31	9.25	9.26	9.32	9.32	9.36	9.36	9.61	9.32
Philadelphia, Pa. (19-114 ft.): 1940							9.92	9.98				
Phoenix, Ariz. (1,112-1,107 ft.): 1939	8.86	8.84	8.74	8.71	8.65	8.61	8.66	8.66	8.72	8.77	8.86	8.90
1940												
Pittsburgh, Pa. (1,273-842 ft.): 1936	9.09	9.15	8.97	9.11	9.16	9.03	9.06	9.12	9.16	9.18	9.17	9.29
1937	9.26	9.09	9.08	9.04	9.10	9.05	9.11	9.20	9.14	9.20	9.19	9.22
1938	9.11	9.26	0.07	9.12	9.06	9.12	9.09	9.14	9.12	9.23	9.15	9.15
1939	9.10	9.16	9.14	9.05	9.09	9.09	9.10	9.10	9.14	9.16	9.32	9.02
1940	9.16	9.08	9.06	9.07	9.02	9.05	9.19	9.18				
Portland, Maine (63-103 ft.): 1940							9.88	9.99				
Portland, Oreg. (39-154 ft.): 1939	0.87	9.76	9.85	9.90	9.86	9.89	9.86	9.83	9.85	9.94	9.90	9.86
1940												
Providence, R. I. (39-154 ft.): 1939	0.87	9.76	9.85	9.90	9.86	9.89	9.86	9.87	9.86			
1940												
Pueblo, Colo. (4,806-4,620 ft.): 1939	5.31	5.21	5.18	5.21	5.30	5.28	5.33	5.34	5.34	5.29	5.45	5.30
1940												
Raleigh, N. C. (3,588-3,767 ft.): 1939	9.69	9.57	9.58	9.57	9.52	9.58	9.60	9.59	9.65	9.68	9.81	9.59
1940												
Rapid City, S. Dak. (3,218-3,259 ft.): 1939	6.71	6.57	6.57	6.60	6.65	6.60	6.62	6.65	6.64	6.62	6.78	6.61
1940												
Reno, Nev. (4,400- 4,527 ft.): 1939	5.48	5.43	5.46	5.45	5.44	5.46	5.49	5.48	5.48	5.54	5.59	5.54
1940												
Richmond, Va. (164-144 ft.): 1939	5.48	5.43	5.46	5.45	5.44	5.46	5.49	5.48	5.48	5.54	5.59	5.54
1940												
Rochester, N. Y. (555-523 ft.): 1939	9.94	9.81	9.82	9.81	9.75	9.80	9.83	9.82	9.84	9.91	9.91	9.91
1940												
Sacramento, Calif. (25-66 ft.): 1939	9.44	9.43	9.38	9.40	9.35	9.33	9.49	9.54	9.54			
1940												
St. Joseph, Mo. (817-967 ft.): 1939	9.98	9.98	9.95	9.93	9.85	9.77	9.84	9.81	9.82	9.82	9.94	0.02
1940												
St. Louis, Mo. (564-568 ft.): 1939	9.1											

Station pressures at Airport adjusted to the old City Office elevation—Continued

Stations	January	February	March	April	May	June	July	August	September	October	November	December
San Antonio, Tex. (582-693 ft.):												
1939-----							9.22	9.22	9.25	9.32	9.49	9.34
1940-----	9.47	9.27	9.23	9.18	9.20	9.18	9.28	9.20				
San Diego, Calif., (28-87 ft.):							9.84	9.81	9.78	9.86	9.92	9.95
1939-----							9.86	9.83				
1940-----	9.96	9.97	9.9C	9.89	9.84	9.82						
Santa Fe, N. Mex. (6,525-7,013 ft.):												
1940-----								3.40				
Sault Ste. Marie, Mich. (724-614 ft.):												
1939-----	9.27	9.30	9.36	9.24	9.28	9.26	9.30	9.28	9.34	9.27	9.52	9.16
1940-----	9.30	9.40	9.32	9.35	9.23	9.20	9.39	9.41				
Savannah, Ga. (51- 65 ft.):							9.93	9.92	9.95	0.00	0.14	0.98
1939-----							9.93	9.92	9.95			
1940-----	0.05	9.95	9.93	9.94	9.88	9.95	0.00	9.89				
Seattle, Wash. (30- 125 ft.):							9.92	9.89	9.91	9.97	9.98	9.85
1939-----							9.92	9.89	9.91			
1940-----	9.89	9.76	9.86	9.92	9.91	9.94	9.91	9.92				
Sheridan, Wyo. (3,968-3,790 ft.):												
1940-----				6.07	6.12	6.09	6.13	6.15				
Shreveport, La. (181-249 ft.):							9.71	9.68	9.72	9.81	9.97	9.78
1939-----							9.71	9.68	9.72			
1940-----	9.96	9.74	9.70	9.66	9.70	9.68	9.76	9.69				

*Station pressures at Airport adjusted to the old City Office elevation—
Continued*

Stations	January	February	March	April	May	June	July	August	September	October	November	December
Sioux City, Iowa (1,103-1,138 ft.):												
1940-----				8.75	8.74	8.69	8.78	8.80				
Spokane, Wash. (1,968-1,929 ft.):												
1939-----												
1940-----	8.07	7.89	7.93	7.95	7.96	7.94	7.93	7.94	7.95	8.02	8.13	8.01
Springfield, Ill. (613- 636 ft.):												
1939-----							9.29	9.29	9.33	9.34	9.58	9.30
1940-----	9.46	9.34	9.30	9.26	9.23	9.25	9.38	9.33				
Springfield, Mo. (1,360-1,324 ft.):												
1939-----												
1940-----	8.77	8.59	8.55	8.53	8.56	8.57	8.62	8.59	8.63	8.66	8.88	8.61
Syracuse, N. Y. (408-596 ft.):												
1939-----												
1940-----	9.34	9.33	9.28	9.31	9.27	9.25	9.32	9.33	9.38	9.36	9.53	9.19
Tampa, Fla. (11-35 ft.):												
1939-----												
1940-----	0.09	0.02	0.08	0.09	0.04	0.00	0.00	0.04	0.06	0.07	0.09	0.03
Wichita, Kans. (1,392-1,358 ft.):												
1939-----												
1940-----	8.76	8.56	8.48	8.47	8.51	8.49	8.51	8.50	8.55	8.56	8.81	8.57

NORTH ATLANTIC TROPICAL CYCLONES OF 1940

By JEAN H. GALLENNÉ

The hurricane season of 1940 was practically normal in all respects. There were 8 disturbances of tropical origin charted over the North Atlantic Ocean, including the Caribbean Sea and the Gulf of Mexico; 4 of these developed hurricane intensity. The average annual number of such cyclones, based on records for the past 54 years, is about 7, of which 3 or 4 usually attain full hurricane force.

There were two low barometric pressure records established, the first at the Weather Bureau office, Port Arthur, Tex., during the storm of August 2-10; the second at the Savannah, Ga., office, in connection with the hurricane of August 5-17. At Port Arthur, Tex., the lowest recorded was 977.7 millibars (28.87 inches), which is considerably lower than the low reading of 994.5 (29.37 inches) of October 16, 1923. An all-time low sea-level pressure reading of 974.7 millibars (28.78 inches) for Savannah, Ga., was noted during the afternoon of August 11.

The most destructive storm was that of August 5-15, which, after moving very slowly at sea for a period of

almost a week, crossed the coast near Beaufort, S. C., during the afternoon of the 11th, accompanied by hurricane-force winds from the Savannah area nearly to Charleston. An estimated 20 persons lost their lives, and approximately \$3,000,000 of property damage was sustained in the coastal areas. The storm later moved farther inland to the southern Appalachian Mountain region attended by torrential rains and disastrous floods in many sections of Georgia, Tennessee, and the Carolinas. At Weldon, N. C., on the Roanoke River, a stage of 58 feet was reached on August 18, exceeding the great flood of 1877 by about 5 feet at that place. Press reports indicate more than 30 deaths; and crop and property damage amounting to many millions of dollars resulted in these flood regions.

A synopsis of the tropical cyclones of 1940 is given in the following table. Their tracks, numbered I to VIII chronologically, are shown on the accompanying chart.